AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for encrypting an input data string comprising a plurality of bits of binary data using a device including a processor communicatively coupled to a memory loaded with an encryption program, the method comprising:

receiving an input data string for encryption at a processor;

providing a static control code index that is defined prior to receiving the input data string for encryption at the processor, the control code index including a plurality of control codes wherein the values of the plurality of control codes are independent of input data string specific characteristics;

determining an order in which to query the presence of each of 2^n different configurations of n bits within an input data string;

generating a control code associated with the determined order using the control code index,

generating a position code by identifying positions of each of the 2^n different configurations of n bits in the input data string in accordance with the determined order; and

combining the control code and the position code to form an encrypted data string.

2. (Cancelled)

3. (Previously Amended) The method of claim 1, wherein determining an order comprises selecting a predetermined order.

4. (Cancelled)

5. (Previously Amended) The method of claim 1, further comprising dividing the input data string into a plurality of blocks of data.

6. (Previously Amended) The method of claim 5, wherein the number of bits within each of the plurality of blocks of data is individually determined in response to a random number generator.

7. (Previously Amended) The method of claim 5, wherein the number of bits within each of the plurality of blocks of data is individually determined in response to a mathematical formula.

8. (Previously Amended) The method of claim 5, further comprising generating a plurality of block codes associated with a plurality of blocks of data, each block code indicating the number of bits within the associated block of data.

9. (Previously Amended) The method of claim 8, further comprising combining the each of the plurality of block codes with the control code and the position code for the associated block of data.

10. (Previously Amended) The method of claim 1, wherein determining an order comprises determining an order based on the frequencies of the 2^n combinations of the n bits of the input data string.

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16 (Cancelled)

17 (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Currently Amended) A method for encrypting an input data string comprising a plurality of bits of binary data, the method comprising:

using a software program code means embodied on a computer readable medium, receiving an input data string for encryption;

using a software program code means embodied on a computer readable medium, providing a static control code index that is defined prior to receiving the input data string for encryption, the control code index including a plurality of control codes wherein the values of the plurality of control codes are independent of input data string specific characteristics;

using a software program code means embodied on a computer readable medium, determining an order in which to query the presence of each of 2^n different configurations of n bits within an input data string;

using a software program code means embodied on a computer readable medium, generating a control code associated with the determined order using the control code index;

using a software program code means embodied on a computer readable medium, generating a position code by identifying positions of each of the 2^n different configurations of n bits in an input data string in accordance with the determined order; and

using a software program code means embodied on a computer readable medium, combining the control code and the position code to form an encrypted data string.

22. (Previously Amended) The method of claim 21, further comprising using a software program code means embodied on a computer readable medium, arranging the input data string into a plurality of data blocks.

23. (Currently Amended) A computer usable medium storing a computer program for encrypting an input data string comprising a plurality of bits of binary data, the medium comprising:

computer readable code for receiving an input data string for encryption;

computer readable code for providing a static control code index that is defined prior to receiving the input data string for encryption, the control code index including a plurality of control codes wherein the values of the plurality of control codes are independent of input data string specific characteristics;

computer readable code for determining an order in which to query the presence of each of 2^n different configurations of n bits within an input data string;

computer readable code for generating a control code associated with the determined order using the control code index;

computer readable code for generating a position code by identifying the positions of each of the 2^n different configurations of n bits in the input data string in accordance with the determined order; and

computer readable code for combining the control code and the position code to form an encrypted data string.

24. (Cancelled)

25. (Previously Presented) The computer usable medium of claim 23, wherein the computer readable code for determining an order comprises computer readable code for selecting a predetermined order.

26. (Previously Presented) The computer usable medium of claim 23, further comprising computer readable code for dividing the input data string into a plurality of blocks of data.

27. (Previously Presented) The computer usable medium of claim 26, wherein the computer readable code for dividing the input data string into a plurality of blocks of data comprises computer readable code for determining the individual number of bits within each of the plurality of blocks of data in response to a random number generator.

28. (Previously Presented) The computer usable medium of claim 26, wherein the computer readable code for dividing the input data string into a plurality of blocks of data comprises computer readable code for determining the individual number of bits within each of the plurality of blocks of data in response to a mathematical formula.

29. (Previously Presented) The computer usable medium of claim 26, wherein the computer readable code for determining an order further comprises computer readable code for determining a first order associated with a first block of data and determining a second order associated with a second block of data wherein the first order is different than the second order.

30. (Previously Presented) The computer usable medium of claim 26, further comprising computer readable code for generating a plurality of block codes associated with a plurality of blocks of data, each block code indicating the number of bits within the associated block of data.

31. (Previously Presented) The computer usable medium of claim 30, further comprising computer readable code for combining the each of the plurality of block codes with the control code and the position code for the associated block of data.

32. (Previously Presented) The computer usable medium of claim 23, wherein the computer readable code for determining an order comprises computer readable code for determining an order based on the frequencies of the 2^n combinations of the n bits of the input data string.

33. (Previously Amended) The computer usable medium of claim 23, wherein the computer readable code for determining an order further comprises computer readable code for determining an order in which to query the presence of each of 2^n different configurations of n bits based on an analysis of the input data string.

34. (Currently Amended) The computer usable medium of claim 23, wherein the computer readable code for ~~determining an order~~ generating the control code comprises computer readable code for generating a control code via a random number generator ~~and employing the order associated with the control code to generate the position code~~ using the control code index.

35. (Previously Presented) The computer usable medium of claim 23, wherein the computer readable code for determining an order comprises computer readable code for generating an order using a mathematical formula.

36. (Previously Presented) The computer usable medium of claim 23, further comprising computer readable code for determining whether the input data string can be compressed simultaneously as it is encrypted.

37. (Previously Amended) The computer usable medium of claim 23, further comprising:

computer readable code for dividing the input data string into n bit sequences;

computer readable code for comparing each of the 2^n different configurations of n bits with each of the n bit sequences;

computer readable code for determining the frequency of each of the 2^n different configurations appearing in the input data string;

computer readable code for determining whether a specific relationship exists between values of the frequencies of each of the individual 2^n different configurations appearing in the input data string wherein the existence of the specific relationship is indicative of the presence of a characteristic within the input data string and wherein the presence of the characteristic indicates that the input data string can be compressed simultaneously as it is encrypted;

computer readable code for selecting a first position code routine associated with the determined order when the specific relationship exists, the first position code being operable to simultaneously encrypt and compress the input data string; and

computer readable code for selecting a second position code routine associated with the determined order when the specific relationship does not exist, the second position code being operable to encrypt the input data string without any compression.

38. (Previously Amended) The computer usable medium of claim 23, wherein the computer readable code for determining the order in which to query the presence of each of 2^n different configurations of n bits within an input data string comprises computer readable code for determining the order in which to query the presence of each of 2^2 different configurations of 2 bits within an input data string.

39. (Previously Amended) The computer usable medium of claim 38, further comprising:

computer readable code for dividing the input data string into n bit sequences;

computer readable code for comparing each of the 2^n different configuration of n bits with each of the n bit sequences of the input data string;

computer readable code for determining a first number representative of the number of times the most frequently occurring 2^n configuration appears in the input string;

computer readable code for determining a second number representative of the number of times the second most frequently occurring 2^n configuration appears in the input string;

computer readable code for determining a third number representative of the number of times the third most frequently occurring 2^n configuration appears in the input string;

computer readable code for determining a fourth number representative of the number of times the fourth most frequently occurring 2^n configuration appears in the input string;

computer readable code for selecting a first position code routine associated with the determined order when the first number is greater than the sum of the third number and the fourth number thereby indicating the presence of a characteristic that indicates that the input data string can be simultaneously encrypted and compressed, the first position code routine being operable to simultaneously encrypt and compress the input data string; and

computer readable code for selecting a second position code routine associated with the determined order when the first number is not greater than the sum of the third number and the fourth number thereby indicating the absence of the characteristic that indicates that the input data string can be simultaneously encrypted and compressed, the second position code routine being operable to encrypt the input data string without any compression.

40. (Previously Presented) The computer usable medium of claim 39, wherein the computer readable code for generating a control code associated with the determined order, further comprises:

computer readable code for generating a first control code associated with the determined order when the first position code routine is selected; and

computer readable code for generating a second control code associated with the determined order when the second position code routine is selected wherein the first control code is different than the second control code.

41. (Previously Presented) The computer usable medium of claim 23, further comprising computer readable code for encrypting the encrypted data string.

42. (Previously Amended) The computer usable medium of claim 41, wherein the computer readable code for encrypting the encrypted data string comprises:

computer readable code for providing an encryption key having a first selected number of bits; and

computer readable code for performing an XOR function between the encryption key and the encrypted data string.

43. (Previously Amended) The computer usable medium of claim 41, wherein the computer readable code for encrypting the encrypted data string comprises:

computer readable code for determining an order in which to query the presence of each of 2^n different configurations of n bits within the encrypted data string;

computer readable code for generating a control code associated with the determined order of the encrypted data string;

computer readable code for generating a position code by identifying the positions of each of the 2^n different configurations of n bits in the encrypted data string in accordance with the determined order; and

computer readable code for combining the newly generated position code and the newly generated control code to create an encrypted version of the encrypted data string.

44. (Previously Presented) The computer usable medium of claim 25, wherein the computer readable code for selecting a predetermined order comprises computer readable code for selecting a default order.

45. (Previously Presented) The computer usable medium of claim 32, wherein the computer readable code for determining an order based on the frequencies of the 2^n combinations of the n bits of the input data string comprises computer readable code for determining an order based on the relative frequencies of the 2^n combinations of the n bits of the input data string.

46. (Previously Presented) The computer usable medium of claim 32, wherein the computer readable code for determining an order based on the frequencies of the 2^n combinations of the n bits of the input data string comprises computer readable code for determining a pre-determined order based on the frequencies of the 2^n combinations of the n bits of the input data string.

47. (Previously Presented) The method of claim 1, wherein determining an order further comprises determining an order in which 2^n different configurations of n bits are to be identified in a position code based on an analysis of the input data string.

48. (Currently Amended) The method of claim 1, wherein ~~determining an order~~ generating the control code comprises generating a control code via a random number generator ~~and employing the order associated with the control code to generate the position code~~ using the control code index.

49. (Previously Presented) The method of claim 1, wherein determining an order comprises generating an order using a mathematical formula.

50. (Previously Presented) The method of claim 5, wherein determining an order further comprises determining a first order associated with a first block of data and determining a second order associated with a second block of data wherein the first order is different than the second order.

51. (Previously Presented) The method of claim 1, further comprising determining whether the input data string can be compressed simultaneously as it is encrypted.

52. (Previously Amended) The method of claim 1, further comprising:

dividing the input string into n bit sequences;

comparing each of the 2^n different configurations of n bits with each of the n bit sequences;

determining the frequency of each of the 2^n different configurations appearing in the input data string;

determining whether a specific relationship exists between values of the frequencies of each of the individual 2^n different configurations appearing in the input date string wherein the existence of the specific relationship is indicative of the presence of a characteristic within the input data string and wherein the presence of the characteristic indicates that the input data string can be compressed simultaneously as it is encrypted;

selecting a first position code routine associated with the determined order when the specific relationship exists, the first position code being operable to simultaneously encrypt and compress the input data string; and

selecting a second position code routine associated with the determined order when the specific relationship does not exist, the second position code being operable to encrypt the input data string without any compression.

53. (Previously Amended) The method of claim 1, wherein determining the order in which to query the presence of each of 2^n different configurations of n bits within an input data string comprises determining the order in which to query the presence of each of 2^2 different configurations of 2 bits within an input data string.

54. (Previously Amended) The method of claim 53, further comprising:

dividing the input data string into n bit sequences;

comparing each of the 2^n different configuration of n bits with each of the n bit sequences of the input data string;

determining a first number representative of the number of times the most frequently occurring 2^n configuration appears in the input string;

determining a second number representative of the number of times the second most frequently occurring 2^n configuration appears in the input string;

determining a third number representative of the number of times the third most frequently occurring 2^n configuration appears in the input string

determining a fourth number representative of the number of times the fourth most frequently occurring 2^n configuration appears in the input string;

selecting a first position code routine associated with the determined order when the first number is greater than the sum of the third number and the fourth number thereby indicating the presence of a characteristic that indicates that the input data string can be simultaneously encrypted and compressed, the first position code routine being operable to simultaneously encrypt and compress the input data string; and

selecting a second position code routine associated with the determined order when the first number is not greater than the sum of the third number and the fourth number thereby indicating the absence of a characteristic that indicates that the input data string can be simultaneously encrypted and compressed, the second position code routine being operable to encrypt the input data string without any compression.

55. (Previously Presented) The method of claim 54, wherein generating a control code associated with the determined order, further comprises:

generating a first control code associated with the determined order when the first position code routine is selected; and

generating a second control code associated with the determined order when the second position code routine is selected wherein the first control code is different than the second control code.

56. (Previously Presented) The method of claim 1, further comprising encrypting the encrypted data string.

57. (Previously Amended) The method of claim 56, wherein encrypting the encrypted data string comprises:

providing an encryption key having a first selected number of bits; and

performing an XOR function between the encryption key and the encrypted data string.

58. (Previously Amended) The method of claim 56, wherein encrypting the encrypted data comprises:

determining an order in which to query the presence of each of 2^n different configurations of n bits within the encrypted data string;

generating a control code associated with the determined order for the encrypted data string;

generating a position code by identifying positions of each of the 2^n different configurations of n bits in the encrypted data string in accordance with the determined order; and

combining the newly generated position code and the newly generated control code to create an encrypted version of the encrypted data string.

59. (Previously Presented) The method of claim 3, wherein selecting a predetermined order comprises selecting a default order.

60. (Previously Presented) The method of claim 10, wherein determining an order based on the frequencies of the 2^n combinations of the n bits of the input data string comprises determining an order based on the relative frequencies of the 2^n combinations of the n bits of the input data string.

61. (Previously Presented) The method of claim 10, wherein determining an order based on the frequencies of the 2^n combinations of the n bits of the input data string comprises determining a pre-determined order based on the frequencies of the 2^n combinations of the n bits of the input data string.